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Polyclonal Antibody to Serotonin 5-HT₃ Receptor

Catalog No: IMG-367

Contents: 100 µg in 200 µl PBS containing 0.02% sodium azide. Sodium azide is highly toxic

Isotype: Rabbit IgG

BACKGROUND

Serotonin (5-hydroxytryptamine, 5-HT), originally discovered as a serum factor plays important roles in regulating diverse biological processes in central and peripheral nervous systems, cardiovascular systems, and gastrointestinal systems (1). The 5-HT₃ receptors are distinguished from other 5-HT receptors by their structure and function. 5-HT₃ receptors span the membrane only four times and are ligand-gated, cation-selective ion channels that mediate neuronal excitation and exocytotic release of neurotransmitters within the peripheral and central nervous systems (2,3). Functional studies done on isolated tissues have revealed heterogeneity of this receptor. The human 5-HT₃R-As cDNA contains an open reading frame of 1434 base pairs predicting a 23-residue signal peptide and a mature receptor subunit of 455 amino acids (4). The human subunit exhibits 85% and 84% amino acid sequence identity to the mouse (5) and rat (6) receptors, respectively. Anti-5-HT₃R polyclonal antibody shows immunoreactivity in the forebrain (olfactory regions, hippocampal formation and amygdala), sensory and motor nuclei of brainstem and spinal cord (7)

ANTIGEN

This antibody was developed by immunizing rabbits with a mixture of synthetic peptides corresponding to amino acids 21-36 and 421-436 of rat 5-HT₃ receptor

APPLICATION

This polyclonal antibody can be used for detection of rat and human 5-HT₃ receptor by Western blot at 1 µg/ml. A protein of 47-50 kDa can be detected in human brain tissue lysate. It has not been tested in other applications.

OTHER RELATED PRODUCTS

1. Anti-5-HT₁BR pcAb (IMG-366).
2. Anti-5-HT₁DR pcAb (IMG-365)
3. Anti-5-HT₇R pcAb mAb (IMG-368).

MW
(kDa)
200 —

116 —
97 —

66 —

55 —

36 —

31 —

21 —

14 —

6 —

5-HT₃R

Western blot analysis of 5-HT₃R in human brain tissue lysate with anti-5-HT₃R pcAb (Cat. #. IMG-367). A protein band of approximate molecular weight of 47-50 kDa was detected.

STORAGE

This antibody is supplied as protein G purified protein. Store at 4°C, stable for 6 months. For long-term storage, store at -20°C.

REFERENCES

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4. Belleli, D., Balcarek, J.M., Hope, A.G., Peters, J.A., Lambert, J.J., Blackburn, T.P. Mol. Pharmacol. 48: 1054-1062 (1992).
5. Hope, A.G., Downie, D.L., Sutherland, L., Lambert, J.J., Burchell, B. Eur. J. Pharmacol. 245: 87-192 (1993).
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